function. This investment is booked to the digital circuit equipment account. Gross investment for this element also includes land and building investment. Recurring costs for each type of investment are identified in this section. There are no non-recurring costs associated with this function.

m. Security Installation Function

As with certain other functions, investment identified for Security Installation is a surrogate used to identify appropriate maintenance, administration, and overhead expense. Surrogate investment for this function is considered part of the building (account 223210). The equipment identified represents the additional security equipment (e.g., additional card readers, system augments) that is needed to establish a secured access corridor for use by EIS customers to traverse from the building entry to the collocation common area without escort in a central office. Pacific Bell would neither need nor purchase this additional equipment in a central office if collocation service was not requested.

n. Active Security Function

This is a non-recurring function only. Non-recurring functions are discussed below in Part A(b)(3).

RECURRING COSTS

Expenses and taxes on the recurring TRP charts include depreciation, cost of money, state and federal income taxes,

maintenance, and direct administrative costs, including property and other operating taxes. Overheads are not included, which is why rates exceed unit costs.[10] The included costs were identified by applying standard factors to gross investment. The methodology used to calculate these costs for all recurring TRP functions is described below.

a. Depreciation

Depreciation rates were applied to gross current investment, by plant account, to identify annual depreciation expenses. These rates are prescribed by the FCC.[11] For functions with multiple plant accounts, the annual costs for each account were added together. The total amount appears on the depreciation expense line of the TRP chart.

b. Cost of Money

The cost of money is calculated by first determining the portion of the Return and Income Tax ("RIT") attributable to the cost of money and that portion attributable to income taxes. As shown by Appendix P (page 1), the income tax portion of RIT amounts to 28.35%. The remaining portion (71.65%) represents the cost of money. The RIT factor is further explained in Appendix P (starting on page 3).

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10 See Designation Order, at n.57.

11 See In The Matter Of The Prescription Of Revised Percentages Of Depreciation, Memorandum Opinion and Order, 7 FCC Rcd. 1050, Appendix at 24 (1992)("1992 Depreciation Order").

The cost of money portion of the RIT factor was applied, by plant account, to gross investment to identify the annual cost of money. For functions with multiple plant accounts, the annual costs for each were added together. This total amount appears on the cost of money line of the TRP chart.

c. Income Taxes

The income tax portion of the RIT factor was applied, by plant account, to gross investment to identify annual income taxes. For functions with multiple plant accounts, the annual costs for each account were added together. On the TRP chart, total income taxes were split between state and federal according to the formula in Appendix P (page 2).

d. Maintenance

A maintenance factor was applied to equivalent gross book investment, by plant account, to identify annual maintenance expense. The factor was developed, by plant account, by dividing annual maintenance expense for an account by gross book investment for that account. For functions with multiple plant accounts, the annual costs for each account were added together. This total amount appears on the maintenance expense line of the TRP chart.

e. Administration

An administration factor of 6.59 percent was applied to equivalent gross book investment to identify direct annual administrative expenses associated with each TRP recurring

function. The factor was developed by dividing direct annual administrative expenses by gross book investment, both of which are allocated to Pacific Bell-defined service categories. One of the categories includes all Special Access services.

The allocation of expenses and investment among categories is based on a well-established Pacific Bell methodology, which has been used in developing all Pacific Bell tariff rates for at least the last 5 years. The methodology allocates investment and expense to services at a subaccount level. Services and their costs are then aggregated to a service category level. The administration factor is calculated at the service category level and applied in individual cost studies to services that are in (or new services that will be in) that category.

The expense account detail shown on the TRP charts for administrative expense was developed using the distribution ratios shown in Appendix Q. These ratios were calculated using account detail, by service category, available from the cost allocation methodology described above. The amount shown on Appendix Q for official company services reflects the cost of internal Pacific Bell telecommunications, which is allocated to Special Access.

Direct administration expense is not overhead. In the expanded interconnection cost analysis, its application is meant to identify direct costs such as ongoing security, AC power consumption, product management, real estate management, regulator support, janitorial and garbage services, and cost analysis.

All of the factors and calculations described above are shown in the workpapers underlying each recurring TRP function.

This method of applying cost factors to investment recognizes the historical relationship between expenses and investment. Further, this methodology is superior to reliance on estimates of direct administrative costs, particularly for a new service.

(2) Investment Methodology

The investment amounts used to calculate Pacific Bell's recurring charges for EIS do not reflect either prospective or embedded costs. Rather, investment was identified on a current cost basis. In other words, investment reflects the cost of plant and equipment as of the beginning of calendar year 1993.

The depreciation lives shown on each recurring TRP were calculated on the basis of the depreciation rates prescribed by the Commission.[12] The lives were calculated by dividing the FCC-prescribed Remaining Life Rate, by plant account, into one.

The percentage cost of money ("COM") as displayed on each recurring TRP chart (except where investment surrogates are used) is not the percentage used to develop costs or rates. The COM percentage shown on the TRP schedules is a weighted average for all the plant accounts that make up a given function. It is calculated by dividing total cost dollars (line 15) by total investment (line 1). The percentage cost of money varies by plant account because the RIT factor varies by plant account. The RIT factor, in turn, varies by plant account because it is impacted by depreciation life. COM factors were applied at the account, not function,

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[12] See 1992 Depreciation Order, Appendix at 24.

level, as described in (b)1 above and as detailed in the workpapers relating to each recurring TRP.

The rate of return used in calculating all RIT factors, which in turn determines the percentage cost of money for each plant account, is the 11.25% rate authorized by the FCC. The COM percentage shown on each TRP (and in recurring TRP workpapers) is necessarily less than 11.25% because it reflects the cost of money as a percent of gross investment over the life of a new plant item. COM, or rate of return, is sometimes stated as a function of net investment, which declines (eventually to zero) over the life of a plant item. COM as a percentage of net investment will remain constant over time, but COM in dollars will decline as net investment declines. On the other hand, since gross investment for a plant item remains constant over the plant's life, COM as a percentage of gross investment must decline over time (since COM in dollars declines). The cost of money percentages used in these cost studies are a percentage of gross investment and reflect the average COM over the life of the new plant item being costed. The percentages are therefore less than 11.25%. Formulas for the RIT factors are detailed in Appendix P.

(3) Non-Recurring Charges

Pacific Bell sets forth below a description of the cost items associated with each non-recurring TRP function, including descriptions of labor functions. Estimated labor hours and estimated labor costs for each non-recurring function are provided in accompanying workpapers. In all but one instance, estimated

labor hours were developed by Pacific Bell subject matter experts based on relevant experience with real estate development; DC power system engineering and installation; and security planning and implementation. The exception is the labor hour estimate for the central office survey (see the Common Construction function), which is based on Pacific Bell's actual experience in performing central office surveys for Special Access collocation. In all cases, labor costs reflect wages plus benefits plus loadings.

In addition to wages and salaries, hourly labor rates include loadings for vacation, training, overtime, commissions, bonuses, health care plan costs, Worker's Compensation, pension and life insurance accruals, and short-term disability coverage. Additional direct-cost loadings include supervision and clerical support, and associated benefits. Other loadings, where applicable, include a portion of maintenance for land and building, general purpose computers, and motor vehicles. The land and building loadings do not double count any of the land and building costs reflected in recurring functions. They represent land and building costs associated with non-recurring functions only. All of the loadings described above are costs which can be associated, directly or indirectly, with an hour's worth of labor. Overheads, which are not included in the loadings detailed above, are the final layer of loadings.

Pacific Bell's specific labor rates and loadings are proprietary information. On average, the amount of overhead loaded onto the rate which excludes overheads is approximately 20%.

NON-RECURRING FUNCTIONS

a. Entrance Facility Installation Function

This function is equivalent to Pacific Bell's Cable Placement/Removal rate element. There are three major cost components: engineering, vertical placement/removal, and horizontal placement/removal. The workpapers relating to this function are contained in Appendix A.

There are four distinct labor functions associated with the engineering component. The same functions and hours are involved for placement and removal The Outside Plant Engineer issues an order for the placement of inner duct and determines the cable route in the vault up to the vertical riser. The TIES Engineer determines the availability of the vertical riser, horizontal cable rack and supporting structure, and provides cable routing information from the vertical riser to the collocation space. The Facility Equipment Engineer serves as the project manager for the job and is responsible for managing and tracking the job from start to finish. Tasks include issuing the job to engineering, coordinating Pacific Bell resources, coordinating Method of Procedure ("MOP") meetings, and ensuring due date completion. The Engineering Aide opens and closes the job in accounting, develops job books, and prepares supporting paperwork.

Vertical placement involves two Outside Plant Technicians who must route the collocator's fiber cable along ladder racking and tie it down to the racking, as well as remove and replace fire plates in the floor and ceiling between floors. For removal, the same functions (in reverse) and hours are involved. Horizontal

placement also involves two Outside Plant Technicians who route and secure the cable along racking supported by ironwork suspended from the ceiling.

b. Entrance Facility Space Function

This is a recurring function only and has been discussed above.

c. Common Construction Function

This function includes both material and equipment which are treated as contributed capital items[13] and Pacific Bell labor. The workpapers associated with the function are contained in Appendix C.

The labor costs for this function consist of two major components: C.O. survey labor and implementation management labor. The C.O. survey involves eleven different people, each with a distinct function. Initially a meeting is held to discuss issues surrounding collocation (i.e., space availability, building access, security, power provisioning, etc.) in the office to be surveyed. Other tasks, by function, are:

> Real Estate - evaluates the collocation site conditioning requirements and develops initial site layout.
>
> Security - determines building and collocation space security issues and provides recommendations.

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[13] The contributed capital items and the cost development for these items have been described above.

Collocation Point of Contact - leads and coordinates the survey team's activities, collects survey data for tariff rate development.

Facility Equipment Engineer - identifies issues that may affect the location of the collocation space such as having to remove or relocate equipment.

Detail Engineer (Resident Engineer) - determines extent of ironwork and cable racking requirements. Provides cable footage for tariff rate development and collaborates with Real Estate on initial collocation site layout.

CSPEC (Common System Planning and Engineering Center Manager) - provides current use of space that is under consideration for collocation to ensure that space can be reserved for collocation.

Power Engineer - determines if current power system will support demand beyond Pacific Bell's anticipated power requirements and identifies the appropriate power source.

Site Manager - provides input on any specific security and safety issues that may affect collocation in the central office being surveyed.

Outside Plant Engineer - specifies interconnection points and identifies available entrance facilities. Determines vault footage for tariff rate development. Assists in determining vertical riser availability.

Central Office Manager - is responsible for switching equipment in central office. Provides input on location of collocation space and identifies any issues that may affect the selection of the collocation space

Network Terminating Equipment Manager - provides input on selection of and access to collocation space. Assists in determining if the provision of access to collocation space will affect existing technician access/routes to other equipment on floor.

Implementation Management involves three functions:

Environmental Management - inspects collocation area during and after initial construction to ensure compliance with federal, state and local

environmental and safety rules and regulations. Ensures that area complies with environmental rules and regulations before releasing area for use by customer.

Risk Management - assesses collocation area and security arrangements to ensure that building and space set-up complies with Pacific Bell liability and insurance requirements.

CPOC (Collocation Point of Contact) - coordinate and participate in walk-throughs with Environmental and Risk Management to ensure that space is releasable.

d. Construction Provisioning Function

This section provides a description of each labor task required for Construction Provisioning. Workpapers supporting this non-recurring function are contained in Appendix D. The Account Manager is the initial point of contact for collocation requests. Tasks include meeting with the customer to explain EIS-PC and the application process, and forwarding the application and payment to the Project Manager. The Project Manager reviews and processes the collocation application and advanced payment, notifies and provides pertinent information to appropriate managers. A Pacific Bell manager will review the collocation application section pertaining to equipment that will be installed to verify that a customer's equipment complies with Network Equipment Building Systems ("NEBS") requirements.[14]

The Account Manager/Account Executive will coordinate all contacts between Pacific Bell and the customer throughout the

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[14] NEBS is a Bellcore technical reference which presents Bellcore's view of proposed minimum generic requirements that appear to be appropriate for all new telecommunications equipment systems used in a central office.

entire construction phase. The Flexible Accounting Billing System ("FABS") manager is responsible for setting up the billing account for collocation customers and processing the advanced payment into the proper accounts. Space assignment functions are performed by the Collocation Point of Contact. This task includes verifying space availability, and developing and coordinating the collocation space allocation plan.

A customer meeting will be held to review the request and to discuss any pertinent issues, such as cable footages, technical requirements, and construction timeline/due dates. The Account Manager/Account Executive, the Project Manager, the Collocation Point of Contact, and an Engineering Point of Contact will represent Pacific Bell at these meetings with the customer.

A customer walk through will be conducted after the space has been cleared for release. The customer will be assigned its space, given security access cards and relevant central office site-specific information. Accompanying the customer will be the Account Manager/Account Executive, the Site Manager, and the Collocation Point of Contact. An Environmental Manager will review the completed customer installation to determine if the customer has complied with safety, fire, and environmental rules, regulations, and standards.

e. Interconnector-Specific Construction Function

The costs relating to this function consist entirely of contributed capital items. The cost development of this recurring function is discussed above.

f. Floor Space Function

This is a recurring function only and is discussed above.

g. Termination Equipment Function

This is a recurring function only and is discussed above.

h. DC Power Installation Function

The DC Power Installation function is made up of three major cost components: a fixed cost component (engineering and cable placement set up) which does not vary with the length of the power run; and two variable cost components: (1) distribution feeder cable and cable placement; and (2) power distribution feeder cable ironwork and cable racking. As with certain other functions, the investment costs associated with the latter component (ironwork and racking) are treated as contributed capital and are recovered up front. The maintenance, administration, and overheads are recovered over time (in this case via the DC Power Installation Function - Recurring). These costs are described above under DC Power Installation Function - Recurring. Supporting workpapers are contained in Appendix H.

Engineering of the power distribution feeder cable run involves five labor functions. The Facility Equipment Engineer serves as the project manager for the job and is responsible for managing and tracking the job from start to finish. This employee's tasks include issuance of the job order to engineering and contract labor, coordination of Method of Procedure meetings ("MOP"), and ensuring due date completion. The TIES Engineer

engineers and designs the power cable rack and supporting structure and provides cable routing information for placement of power cable. The Detail Engineer engineers and designs the power cable run and determines the power source, power cable size and fusing requirements. The Communications Technician observes contract labor performing the installation of the power cable during critical work activities such as when cable is being terminated on working equipment. The Engineering Aide opens and closes the job in accounting, develops job books, prepares supporting paperwork, and verifies and processes job bills.

Cable and cable placement costs are developed for six distance bands. Costs include the cost of cable material and the cost of contract labor to place the cable in power racking supported by ironwork suspended from the ceiling. Distance bands reflect the fact that cable costs vary by wire gauge, which is a function of carrying 40 amps over different distances.

i. DC Power Generation Function

This is a recurring function only and is discussed above.

j. Cross-Connection Provisioning Function[15]

Cross-connection provisioning costs were determined in the following manner. First, the work groups involved in provisioning DS1 and DS3 cross connections to collocators were identified. Next, the specific tasks necessary to provision DS1

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[15] The Commission has requested that the LECs include the costs that apply between the interconnector's space and the LEC's MDF. Pacific Bell does not provision EISCC on an MDF.

and DS3 cross connections were identified. Average task times were multiplied by the actual work time labor rate, including loadings, as mentioned above, to determine the costs associated with each work group. Finally work group totals were summed to identify total costs for installation. The non-recurring cost totals for each work group are displayed on Worksheet J.4.

The following is a brief explanation of the functions of the work groups identified in provisioning DS1 and DS3 cross connections:

Interexchange Carrier Service Center ("ICSC"): This group receives and processes orders to establish or disconnect service. Connecting facility assignments specified by the carrier or collocator are input on the service order and distributed to the various work groups involved in provisioning DS1 and DS3 cross connections.

Engineering: This group verifies that the connecting facility assignments issued on the service order are available and issues a work order to the provisioning work groups that specifies equipment and connection bay and rack locations.

Facilities Maintenance Administration Center ("FMAC"): This group receives the service and work orders and provisions the cross connection. Work activities include: preparing a package with all relevant information for the tester; programming the digital cross connect system to interconnect the correct circuits; testing on the scheduled plant test date to determine that all parameters are met. The final step is coordination of joint testing and turn up of the service to the customer.

k. Cross-Connection Cable and Cable Support Function

This is a recurring function only and is discussed above.

l. Cross-Connection Equipment Function

This is a recurring function only and is discussed above.

m. Security Installation Function

Additional security equipment required as a result of collocation is treated as contributed capital. The workpapers in Appendix M display these costs by central office. The costs were developed on the basis of current vendor information.

n. Active Security Function

The cost of Active Security is simply the cost of initial and replacement identification badges.[16] The costs were identified on the basis of current vendor information.

(c) Overhead Cost Information

(1) The evaluation of overhead loading amounts must be addressed separately for recurring and non-recurring costs.

Pacific Bell used a uniform overhead factor of 2.87% to develop each recurring EIS rate element (see line 9 of the workpapers supporting all recurring TRP charts). The overhead factor is based on the historical relationship of total regulated overhead expense to investment (i.e. for every $0.0287 of overhead

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[16] Labor charges for Pacific Bell escorts in non-secure areas were tariffed and in effect prior to the establishment of EIS. See Pacific Bell Tariff F.C.C. No. 128, § 13.

expense there is $1.00 of investment). Because the overhead factor is applied to investment, overhead amounts vary among the recurring rate elements as investment amounts vary.

The overhead factor is derived in the same manner as the administration factor: by dividing annual overhead expense allocated to the Special Access service category by gross book investment allocated to that category. As noted above, booked investment and expense are allocated to products at a subaccount level. Products and their costs are then aggregated to a service category level. The overhead factor is calculated at the service category level and applied in individual cost studies to services that are in (or new services that will be in) that category.

The overhead amount identified for particular non-recurring costs is partially a function of the difference between fully assigned and directly assigned labor rates. Fully assigned rates include overhead; directly assigned rates do not. But mainly the amount of overhead included in a non-recurring cost is a function of whether and to what extent the non-recurring costs consist of Pacific Bell labor. Overhead is not included in non-recurring cost items which do not involve Pacific Bell labor (i.e., non-capitalized material and equipment). Therefore, the non-recurring Interconnector-Specific Construction function, which includes no Pacific Bell labor, has no overhead loading. On the other hand, the Entrance Facility Installation function, which consists entirely of Pacific Bell labor, includes overheads that reflect the difference between the fully assigned and directly assigned labor rates used. Workpapers for each non-recurring

function identify the difference in cost where labor rates, including overhead, are used (those on which Pacific Bell's rates are based) as opposed to rates excluding overhead.

All costs were rounded to the nearest dollar to determine rates. This is an accepted and reasonable approach to avoid dealing with very small sums of money.

The investment overhead factor used by Pacific Bell for all expanded interconnection rate elements is the same as that used in DS1 and DS3 cost studies to meet the tariff review standard for below band filings. The application of this factor is consistent in all such cost studies. Recent examples include Pacific Bell's tariff filing for Digital Video Service and also the DS3x12 and DS3 channel mileage cost studies. The DS3x12 and DS3 mileage cost study was requested by the Commission to investigate volume and term discounts so as to verify that rates fully recovered costs and were otherwise just, reasonable and nondiscriminatory.

Pacific Bell cost studies demonstrate the consistent application of the investment overhead factor. Pacific Bell expects that the overhead factor will change over time as it is calculated annually.

Pacific Bell's overhead costs required no adjustment to prevent double recovery, as described in the Special Access Tariff Order.[17] The ARMIS factor, adjusted to exclude a GSF over-allocation, was higher than any of the Pacific Bell overhead

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[17] See In the Matter of Ameritech Operating Companies et al., Order (DA 93-657), slip op. at ¶¶ 31-37 (June 9, 1993) ("Tariff Order").

factors calculated by the FCC.[18] The development of all of Pacific Bell's cost factors is separate from ARMIS. These factors do not duplicate, double count, or otherwise allow for the double recovery of any costs.

(2) Pacific Bell did not use "closure factors" in order to include overhead amounts in EIS rates.

(d) Sample Price Out

Pacific Bell has provided a "Price Out" based on proposed recurring and non-recurring tariffed rates for the LSAN01 central office. (This office was selected because its charges are in the mid-range and interest by numerous potential interconnectors was shown for this location during development of the list for offices to be included in the tariff.) Non-recurring costs were amortized over five years, as the Commission ordered. The total cost for the 100 DS1 circuits was then divided by 100 to determine the cost per DS1.

Pacific Bell has also provided a price out based on a scenario it believes is more representative of the business opportunities for interconnectors in the California market, especially when switched access transport is included as a part of the market opportunity. When the fixed investment is spread over the larger number of DS1s contemplated by the broader market opportunities, the cost per DS1 declines dramatically. Pacific Bell's price out, which allocates costs among 250 DS1s, demonstrates this reduction in unit costs. If the market is truly

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[18] See id. at Appendix C.

receptive to competition, it is anticipated that the DS1 demand proposed in Pacific Bell's broader market opportunity scenario is a reasonable forecast of interconnector business.

(e) Non-Recurring Charges for Recurring Costs

Pacific Bell did not compute any of its non-recurring charges based on the present discounted value of recurring costs of capital outlays.

(f) Floor Space Charges

(1) The difference between land, building, and floor space cost per assignable square foot on an embedded basis versus a current basis is displayed in Appendix R. Pacific Bell's rates are based on current costs. The embedded costs reflect today's book value of each building prior to capital upgrades that are required to provide EIS in the central office. If Pacific Bell were to base its recurring rates on embedded costs, it would need to adjust those rates upward to recover the cost of capital upgrades, where required, such as demolition, new flooring, environmental conditioning, and painting. Based on an analysis of offices that have prepared estimates[19] of the costs of these improvements, such costs per office range from $9,000 to $53,000. If the embedded methodology were used, these would be infrastructure costs and would be added to the Common Construction charge

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[19] Because these costs were not relevant to Pacific Bell's rates, these estimates were not made for every EIS office. One dozen offices were analyzed.

(where the charge is prorated based on the number of collocators).[20] Since Pacific Bell's proposed rates reflect the current construction cost of a new central office building (new floors, new paint, and no demolition required), the upgrade costs Pacific Bell will incur to establish the collocation area were not reflected in any of the non-recurring construction charges, thereby eliminating any possible double recovery. These upgrade costs, which Pacific Bell will incur, are not specifically charged in Pacific Bell's rates, since current building costs were used to support the rates.

Pacific Bell selected the current cost approach because it permits rates to be established on the basis of the cost of offering EIS. We briefly set forth below the rationale underlying Pacific Bell's selection of current cost.

Incremental cost, the added cost of producing an increment of service output, is universally recognized as the economically relevant cost for use in pricing,[21] especially for

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[20] Alternatively, if Pacific Bell were required to capitalize these costs and recover them in a separate recurring charge, the embedded cost basis would potentially produce much higher rates. Using the $53,000 scenario as an example, the monthly cost would be approximately $8.00 per square foot higher for one collocator (subject to proration) than the costs shown in Appendix R.

[21] See A.E.Kahn, The Economics of Regulation, Vol. 1 at 66 (MIT Press 1988). It should be noted that investment cannot be strictly categorized as either prospective, embedded, or current, because prospective costs can be viewed from either an embedded or current standpoint. Thus, a cost study can be based on either embedded investment, prospective embedded investment, current investment, or prospective current investment. Embedded investment is the same as book value, or the value of investment on a company's balance sheet. This value reflects the original cost of all unretired plant purchased over past years. Unit embedded investment reflects the average of all these costs (total investment divided by (continued...)

setting price floors. The added cost incurred to satisfy demand for EIS -- incremental cost, not embedded -- is clearly the relevant cost on which to base rates because that is the cost caused by the demand for EIS. More specifically, it is long run incremental cost ("LRIC") which is the proper standard for economically efficient rates. Only by looking at current (or prospective current) costs can the added cost, today or in the future, resulting from a decision today, be assessed in LRIC terms.[22]

Although prospective current costs are suitable for developing rates which may be fixed over a period of years, proper calculation of these costs and rates requires a reliable demand forecast, since demand levels affect both the increment of cost to

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[21] (...continued)
units in service.) Prospective embedded investment is a projection of book value in some future year. It accounts for additional investment expenditures between now and the future (at future costs) and excludes the original cost of plant retired between now and the future point in question. Unit investment on a prospective embedded basis is an average of these costs. Due to inflation, prospective embedded unit investment is typically higher than embedded unit investment. Current investment is simply today's (or this year's) cost of plant. Current unit investment does not include averages of historical or future investment. Due to inflation, current unit investment is typically higher than embedded unit investment. Current unit investment may be higher or lower than prospective embedded depending on inflation rates, plant life, and the year of the prospective costs. Because costs generally increase over time, the longer into the future that the prospective embedded costs are projected, the more they will exceed current costs. Prospective current investment is a projection of current investment into some future year. Unit cost on a prospective current basis may be calculated at a single point in time or it may be averaged over a future study period. Because of inflation, these unit costs are typically, but not always, the highest of all.

[22] For a definition of the terms "current investment" and "prospective current investment," see n.21 supra.

be incurred and the rate levels necessary to recover those costs. The calculation of a weighted average of costs over the period in which rates are expected to be fixed allows rates to be set in expectation of recovering costs.[23] In the absence of a reliable demand forecast, however, Pacific Bell chose to use current cost as the next best alternative to prospective current costs. Thus, other things being equal, Pacific Bell's identified costs, and rates for interstate EIS, are lower than they otherwise would have been (assuming inflation) if prospective current costs had been used. Moreover, the use of current cost avoids any controversy about the validity of demand forecasts and estimated inflation rates far into the future.

Current cost is the best surrogate to prospective current cost for estimating LRIC in the absence of a reliable long-term demand forecast, because current costs are more representative than historical costs of LRIC. The LRIC basis for rates recognizes that assets will eventually reach full capacity, or wear out, and have to be augmented, or replaced, at the current cost at that point in time. The LRIC methodology also recognizes that Pacific Bell is building new central offices not only as a result of long run overall growth, but also due to geographic shifts in population and business concentration. Since these new central offices will be built to meet increasing or shifting telecommunications demand, interconnectors are likely to request EIS in these offices in order to follow large customer concentrations.

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[23] This weighted average of costs is often referred to as levelized cost.

The use of current cost also takes into account that in a competitive market, which the FCC's expanded interconnection policy is intended to foster, new entrants typically must incur current costs of land and building (as well as power, etc.) in order to establish their businesses. Nonetheless, the FCC's policy actually provides interconnectors with a significant competitive advantage in that these competitors can enter a market by only acquiring as much building space (i.e., in 10 foot x 10 foot increments) at current cost as they need, rather than having to acquire space in larger increments at current costs, as is normally required under commercial leases, which larger space they may not need.

Embedded costs are not economically relevant and are therefore not suitable for use in support of rates which are designed to recover costs caused by demand for EIS. Embedded costs are not economically relevant because they do not properly account for the full additional incremental costs incurred to satisfy demand for a new service like EIS. Embedded investment reflects investment costs incurred in the past and as such does not reflect the cost of satisfying incremental demand today. Moreover, embedded cost is largely irrelevant because it reflects historical investment, not new investment which may become stranded, or which may have alternative uses. It therefore fails to account for the actual costs that can be avoided or the opportunities for other service that are missed, relative to EIS service.

Finally, it should be noted that market value is a completely distinct concept from that of either embedded or current

cost. Market value is a function of supply and demand, and bears no necessary relationship to current or embedded cost. With respect to floor space, a landlord's land and building cost per square foot might be greater than the market value of the space per square foot if there is an ample supply of space and very little demand. Conversely, cost may be far less than market value if demand greatly exceeds supply. In the case of central office space, however, in light of the FCC's EIS Orders, there is no way to calculate the market value of such space since the normal supply and demand market drivers do not exist. By contrast, it is relatively simple to determine the market value of a commercial real estate site.

(2) Pacific Bell did not use "market value rental rates" to calculate floor space rates for EIS. The floor space costs used to develop Pacific Bell's EIS rates include maintenance and administration related to land and building assets, and maintenance and administrative costs related to contributed capital (material and equipment), which are not included in the basis of the land and building assets. In other words, the land and building maintenance and administration are identified by applying cost factors to land and building investment. This land and building investment does not include the cost of ironwork and cable racking, additional security system equipment, and miscellaneous cabling and wiring which, as discussed above and in the corresponding workpapers, are treated as contributed capital items and used as surrogate investment to identify their own maintenance and administrative cost. There is no double recovery of costs.